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PATENT SPECIFICATION

DRAWINGS ATTACHED

1,125,089



1,125,089

Inventor:—ANTONY PETER ROYLE

Date of filing Complete Specification: 14 August, 1967.

Application Date: 9 September, 1966.

No. 40310/66

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Index at Acceptance:—H2 H2B2; G1 U12A1.

Int. Cl.:—B 60 q 9/00.

ERRATUM

SPECIFICATION NO. 1,125,089

Page 2, lines 10/11, *Transpose* lines 10 and 11

THE PATENT OFFICE,
29th January 1969

D 111765/6

10 This invention relates to a circuit for
testing an occasional lamp on a road vehicle.
By an occasional lamp is meant a lamp
which is illuminated from time to time, for
example a stop lamp, as distinct from a
lamp which is illuminated continuously as
15 desired, as for example a tail or side lamp.

A circuit according to the invention
includes a resistor and a manually operable
switch connected across the switch which
when closed serves to illuminate the
20 occasional lamp, said manually operable
switch being movable by a driver of the
vehicle from an off position to a first
position in which it completes a circuit to
the occasional lamp through the resistor,
25 and to a second position in which it
maintains the circuit to the occasional lamp
and at the same time connects a testing lamp
across the resistor.

The accompanying drawing is a circuit
30 diagram illustrating one example of the
invention.

Referring to the drawing, the vehicle
battery 11 has its negative terminal earthed
and its positive terminal connected to a
35 switch 12 which is closed when the brakes
of the vehicle are operated, and when closed
completes a circuit to a stop lamp 13 on
the vehicle. Connected across the switch
12 is a resistor 14 and a manually operable
40 switch 15 which is movable from an off
position shown to a first operative position
in which it completes a circuit to the lamp
13 by way of the resistor 14. The switch 15

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the lamp 13 is operative, the testing lamp
16 will be illuminated. Where two stop
lamps 13 are connected in parallel, the
circuit parameters are so chosen that if only 55
one of the lamps 13 is operative, the lamp
16 will still not be illuminated although a
circuit is still completed through the resistor
14.

If the parallel combination of the lamp 16 60
and resistor 14 were to be connected
directly across the switch 12 with the switch
12 in its open position, a current would flow
through the cold lamp 13 which would be
sufficient to develop across the resistor 14 65
a voltage sufficient to blow the lamp 16.
This possibility is prevented by the switch
15, which ensures that the circuit of the
lamp 13 is completed, so that when the
lamp 16 is connected to the lamp 13, the 70
lamp 13 will have a substantially higher
resistance than it has in its cold condition.

In a modification, the resistor 14 is
replaced by a thermistor having a high
positive temperature co-efficient of resist- 75
ance, thereby increasing the voltage
differential across the thermistor when the
lamp being tested is satisfactory and has
failed.

WHAT WE CLAIM IS:—

1. A circuit for testing an occasional 80
lamp on a road vehicle, comprising a
resistor and a manually operable switch
connected across the switch which when
closed serves to illuminate the occasional 85
lamp, said manually operable switch being

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COMPLETE SPECIFICATION

Circuit for testing an occasional lamp on a road vehicle

WE, JOSEPH LUCAS (INDUSTRIES) LIMITED of Great King Street, in the City of Birmingham, 19, a British Company, do hereby declare the invention for which we pray that a Patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a circuit for testing an occasional lamp on a road vehicle. By an occasional lamp is meant a lamp which is illuminated from time to time, for example a stop lamp, as distinct from a lamp which is illuminated continuously as desired, as for example a tail or side lamp.

A circuit according to the invention includes a resistor and a manually operable switch connected across the switch which when closed serves to illuminate the occasional lamp, said manually operable switch being movable by a driver of the vehicle from an off position to a first position in which it completes a circuit to the occasional lamp through the resistor, and to a second position in which it maintains the circuit to the occasional lamp and at the same time connects a testing lamp across the resistor.

The accompanying drawing is a circuit diagram illustrating one example of the invention.

Referring to the drawing, the vehicle battery 11 has its negative terminal earthed and its positive terminal connected to a switch 12 which is closed when the brakes of the vehicle are operated, and when closed completes a circuit to a stop lamp 13 on the vehicle. Connected across the switch 12 is a resistor 14 and a manually operable switch 15 which is movable from an off position shown to a first operative position in which it completes a circuit to the lamp 13 by way of the resistor 14. The switch 15

is further movable to a second operative position in which it connects a testing lamp 16 across the resistor 14, whilst at the same time maintaining the circuit to the lamp 13 through the resistor 14 and the testing lamp 16 in parallel.

When it is desired to test the lamp 13, the switch 15 is operated, so that provided the lamp 13 is operative, the testing lamp 16 will be illuminated. Where two stop lamps 13 are connected in parallel, the circuit parameters are so chosen that if only one of the lamps 13 is operative, the lamp 16 will still not be illuminated although a circuit is still completed through the resistor 14.

If the parallel combination of the lamp 16 and resistor 14 were to be connected directly across the switch 12 with the switch 12 in its open position, a current would flow through the cold lamp 13 which would be sufficient to develop across the resistor 14 a voltage sufficient to blow the lamp 16. This possibility is prevented by the switch 15, which ensures that the circuit of the lamp 13 is completed, so that when the lamp 16 is connected to the lamp 13, the lamp 13 will have a substantially higher resistance than it has in its cold condition.

In a modification, the resistor 14 is replaced by a thermistor having a high positive temperature co-efficient of resistance, thereby increasing the voltage differential across the thermistor when the lamp being tested is satisfactory and has failed.

WHAT WE CLAIM IS:—

1. A circuit for testing an occasional lamp on a road vehicle, comprising a resistor and a manually operable switch connected across the switch which when closed serves to illuminate the occasional lamp, said manually operable switch being

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movable by a driver of the vehicle from an off position to a first position in which it completes a circuit to the occasional lamp through the resistor, and a second position 5 in which it maintains the circuit to the occasional lamp and at the same time

connects a testing lamp across the resistor.
2. A circuit as claimed in Claim 1, in which said resistor is a thermistor.
Chartered Patent Agents,
MARKS & CLERK,
Agents for the Applicants.

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1,125,089 COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of
the Original on a reduced scale.*

